

Title (en)

METHOD AND SYSTEM FOR MEASURING RELATIVE VELOCITY BETWEEN A VEHICLE AND THE SURROUNDING ATMOSPHERE

Title (de)

VERFAHREN UND SYSTEM ZUR MESSUNG DER RELATIVEN GESCHWINDIGKEIT ZWISCHEN EINEM FAHRZEUG UND DER UMGEBENDEN ATMOSPHERE

Title (fr)

PROCÉDÉ ET SYSTÈME POUR MESURER LA VITESSE RELATIVE ENTRE UN VÉHICULE ET L'ATMOSPHERE ENVIRONNANTE

Publication

EP 2795343 A4 20150819 (EN)

Application

EP 11876117 A 20111123

Priority

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Abstract (en)

[origin: WO2013077781A1] A method and system for measuring a vehicle airspeed, wherein a nuclear magnetic resonance, NMR, measurement method is used for obtaining relative velocity between the vehicle and an atmosphere surrounding the vehicle. A groove is arranged at the outside body of an aircraft and the surrounding atmosphere is allowed to pass inside the groove. A strong magnet system establishes a magnetic field with a gradient in the flow direction. The atoms passing inside the groove is exposed to an electromagnetic radiation whereby the atoms oscillate at a Lamor frequency, which is proportional to the strong magnetic field. The change in Lamor frequency along the groove is measured and is proportional to the airspeed.

IPC 8 full level

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CPC (source: EP US)

G01F 1/716 (2013.01 - US); **G01P 5/00** (2013.01 - EP US); **G01P 5/08** (2013.01 - EP US)

Citation (search report)

- [A] WO 8404397 A1 19841108 - SOUTHWEST RES INST [US]
- [A] WO 8704243 A1 19870716 - LONGMORE DONALD BERNARD
- [A] EP 0887655 A2 19981230 - PANACEA MEDICAL LAB [US]
- See references of WO 2013077781A1

Designated contracting state (EPC)

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